

REMARKS

Reconsideration of the patentability of all of the claims of the referenced application is solicited in view of the above amendments and the following comments. The indication of the allowability of the subject matter of claims 31-33, 37, 38, 42, 43, and 45-49 is acknowledged.

Claims 13, 28, 52 and 59 have been cancelled and claim 64 has been added.

The examiner's objection to the drawing as not containing subject matter of claims 1, 23, 59, 53, 54 and 57 dealing with projecting the locus or vertical line has been considered. Applicants have deleted the reference to a vertical line from claims 1, 50, 53 and 57 and have deleted reference to an auxiliary line in relation to an auxiliary line drawing means in claims 23, 51, 54, and 58. With these amendments, it is believed that the examiner's objection to the drawing have been satisfied and should be withdrawn.

The examiner's rejection of claims 1-63 under 35 USC 112 (second paragraph) in that the claims do not particularly point out and claim the subject matter applicants have invented has been considered and is respectfully traversed. Note that the features of locus and auxiliary lines that had previously been added to claims 1, 23, 50, 51, 53, 54, 57 and 58 have been removed from these claims. Similarly, the feature of "along a direction substantially vertical to a road surface" has also been deleted from these claims.

It is therefore submitted that all claims are in proper form and substance to be consistent with this application as filed and all objections should be withdrawn.

The rejection of claims 1-12, 14-30, 34-36, 39-41, 44, and 50-63 under 35 U.S.C. 103(a), as being unpatentable over the Shimizu reference (EP 1065642), is respectfully traversed.

The rejection of claims 52, 55, and 59 under 35 U.S.C. 103(a), as being unpatentable over Shimizu in view of the Okamoto reference ("The Principle of Virtual viewpoint image synthesis using a road surface model", the 71st ITS International Conference, 2000), is respectfully traversed.

The rejection of claim 56 under 35 U.S.C. 103(a), as being unpatentable over the disclosure of the Shimizu reference in view of the disclosure of the Williams reference (USP 5,109,213), is respectfully traversed.

In response to this rejection, the independent claims 1, 50, 53 and 57 have been amended to contain the following features:

"a locus line is viewed from a viewpoint of image pickup means, the locus line viewed from the viewpoint of the image pickup means is projected onto a road surface to obtain a first projected line on the road surface, the first projected line is viewed from a virtual viewpoint, and the first projected line viewed from the virtual viewpoint is again projected onto a plane corresponding to the road surface to obtain a second projected line as a locus line drawn on a synthesized image".

This amendment is supported at lines 7-18 of page 13 of the present specification and Fig. 4.

Further, independent claims 23, 51, 54 and 58 have been amended to depend from the claims 1, 50, 53 and 57, respectively. None of references being relied upon by the examiner,

Shimizu and Okamoto, disclose the newly added features of the locus line drawn on the synthesized image. Therefore, these claims too are clearly distinguished from the state of the prior art and are now in condition for allowance.

Further, noting that claim 31 has been indicated to contain allowable subject matter, the substance of claim 31 has been added to all of the independent claims. Note that claim 1 now calls for:

A storage means that is adapted to store predetermined auxiliary data, a drawing means that is adapted to superimpose auxiliary data on a synthesized image produced by the viewpoint change image synthesizing means from former (now cancelled) claim 28, and a picture synthesizing apparatus that is adapted to represent the claimed vehicle by an illustration of a wire frame or a skeleton and provide an image that exactly duplicates a portion of the vehicle that is liable to come into contact with the outside object whose collision is sought to be avoided by the practice of this invention. Note that this last limitation is directly from claim 31 and claim 31 is now limited to specifying that this portion of the vehicle is especially designated as the bumper or tire of the vehicle. Thus all of the claims now contain the feature that the examiner indicted would constitute allowable subject matter if it was properly combined and rewritten in independent form. Note that claim 1 now incorporated the features of claim 28, which previously depended from it and claim 31 that previously depended from claim 28. The same substance is present in all of the other claims of this application as amended.

For all of the above reasons, it is believed that the amended claims 1, 23, 50, 51, 53, 54, 57 and 58, and all claims dependent therefrom, are clearly patentably distinct from the

disclosures of the Shimizu reference alone or when taken in combination with the Okamoto reference, and thus, all of the art based rejections should now be withdrawn.

It is urged that the outstanding rejections, whether based on prior art or formal matters, be reconsidered and withdrawn. All claims should now be in condition for allowance.

Respectfully submitted;

INTELLECTUAL PROPERTY LAW OFFICE of
MICHAEL G. GILMAN
CUSTOMER NO 50955

A handwritten signature in black ink, appearing to read "Michael G. Gilman", is written over the printed name.

Michael G. Gilman
Registration No 19114
Attorney for the applicant

424 Lantana Park
Lexington, KY 40515
Voice 859 272 0149
FAX 859 272 0150

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